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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/928,991 | 08/15/2001 | Kuang Chun Chou | 4459-058 | 8036 |

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| EXAMINER | |
|---|---|
| LONEY, DONALD J | |
| ART UNIT | PAPER NUMBER |
| 1772 | |

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

A2

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/928,991 | CHOU, KUANG CHUN | |
| | Examiner | Art Unit | |
| | Donald Loney | 1772 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *21 November 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-5 and 11-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,11-16 and 20-22* is/are rejected.

7)☒ Claim(s) *17-19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by any of Fox et al, Sawdai or Ruppel et al as presented in the last office action dated September 3, 2003.

All of the above references teach a paper layer with protrusions extending from both sides. The functional languages in the claims drawn to "for cleaning ..." and the "matching protrusion to the mold" are not positive structural limitations that distinguish the recited invention from the prior art. Refer to Fig. Nos. 14-16 along with column 2, line 15 and column 3, lines 8-32 in Fox et al. Refer to Fig. No. 1 along with column 3, lines 54-65 and column 4, lines 28-34 in Sawdai. Refer to Fig. No. 1, projections (1) that extend from both sides of paper in Ruppel et al.

3. Applicant's arguments filed November 21, 2003 have been fully considered but they are not persuasive.

4. In response to applicant's argument that the cleaning substrate be used to clean a mold, structure of the molds and the positioning of the substrate in the mold cavity, recitations of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of

performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

5. In response to applicant's arguments, the recitation of "used in a process for cleaning and regenerating a mold having at least a mold cavity and a contaminated material layer formed on the mold cavity" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5 and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by McFarren.

McFarren discloses a paper material that has a plurality of projections spaced apart from one another, in a single row, having a trapezoidal profile, on one side of the sheet and being flat on the other side (for instant claim 13). See figures 1 and 2 along with column 1, line 65 disclosing regenerated cellulosic (i.e. paper). McFarren also shows projections on both sides that have a trapezoidal profile in figure 6. The examiner takes the same position as above with respect to the intended use and functions of the substrate in relation to the mold.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over McFarren.

McFarren teaches the invention substantially as recited except for the rectangular shape of the raised portions in plan view. See 35 USC 102 rejection above. McFarren does disclose that various embossment configurations can be used. Refer to column 2, lines 17,18 and 33-35 along with figures 1,3, 5 and 7.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to McFarren to form the embossments of a rectangular shape since McFarren teaches other configuration can be use and since it within ordinary skill in the art to change the shape and/or size of an already known component.

### *Claim Rejections - 35 USC § 102*

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 2, 4, 5, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitaura et al.

Kitaura et al teaches a cleaning substrate for a mold as recited. Claims 1,2,4,5,15,16 and 18 are met by the structure of cleaning substrate 1 shown in figure 5 that shows projections on both sides of the substrate 1 that conform to the mold as show in figure 4. The examiner notes that this is after the substrate is placed and used in the mold; however, the instant claims do not structurally define therefrom. The examiner has excluded the paper claims 3 and 17 from this rejection since the sheet 2 in Kitaura et al that discloses a paper layer 22 (column 6, line 50) is shown in figure 8 to be used to clean only the peripheral portion of the mold (column 8, lines 48-56).

### *Claim Rejections - 35 USC § 103*

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitaura et al in view of the applicants discussion of the prior art.

Kitaura et al teaches the invention substantially as recited except for the pot, runner and gate of claims 20 and 21. See 35 USC 102 rejection above.

The applicant, from figure 1 and page 1, line 23 through page 2, line 12 discloses it is known to clean the particular mold containing the limitation of the instant claims.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to Kitaura et al, to use the cleaning sheet therein to clean a mold as is known in the prior art, motivated by the fact that both the applicant and Kitaura et al teach the need to clean molds after so many uses.

14. Claims 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter: Claims 17-19 are deemed allowable over the prior art since the prior art fails to teach the combination of a semiconductor mold and paper cleaning substrate wherein the cleaning substrate is sized and shaped to be completely received in the mold cavity. The examiner has indicated above in the 35 USC 102 rejection over Kitaura et al the differences between the closest prior art and the instant claims.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Loney whose telephone number is (571) 272-1493. The examiner can normally be reached on Mon-Fri. 8AM-4PM, maxi-flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donald Loney
Primary Examiner
Art Unit 1772

DJL:D.Loney
02/20/04